

SUPPLEMENTAL MEMORANDUM OF UNDERSTANDING BETWEEN  
THE PUBLIC SERVICE COMMISSION OF THE STATE OF NEW YORK  
AND MILLENNIUM PIPELINE COMPANY, L.P.

PURPOSE

This supplemental Memorandum of Understanding "Supplemental MOU") is entered into by the Public Service Commission of the State of New York ("PSCNY") and Millennium Pipeline Company, L.P. ("Millennium") (the "Parties"). The purposes of this Supplemental MOU are to: (a) identify additional design features in fulfillment of the procedures contemplated by Paragraph "n" of an earlier Memorandum of Understanding between the Parties, dated April 18, 2000 (the "MOU"); (b) to designate a decision-maker to resolve disputes pursuant to Paragraph "o" of the MOU; and (c) to clarify the procedures for binding dispute resolution required pursuant to Paragraph "o" of the MOU.

THE PARTIES AGREE THAT:

1. A. 9/9A Proposal

The Alternate Route, as that term is used in the MOU, is identified as the "9/9A Proposal" and is described in Section 2.1 of the Supplemental Draft Environmental Impact Statement ("SDEIS") issued relative to the Millennium Project, dated March 2001 (hereinafter the Alternate Route and the 9/9A Proposal shall be collectively referred to as the "9/9A Proposal"). Pursuant to Paragraph "a" of the MOU, the requirements of the MOU and the additional requirements set forth in this Supplemental MOU shall apply only to the following segments of the 9/9A Proposal and the six power line crossings more particularly described as follows:

- a. Millennium Mile Post 391.4 to 392.1 -- Buchanan;

- b Millennium Mile Post 402.3 to 407.3 -- Elmsford North;
- c. Millennium Mile Post 407.5 to 409.9 -- Elmsford;
- d Millennium Mile Post 414.6 to 418.0 -- Sprain Ridge; and  
Crossings at Mile Posts 402.7, 405.4, 406.8, 409.6, 416.5  
& 417.6.

A map showing these locations is attached as Attachment "A"

B. Con-Ed/Taconic Variation.

In addition, the requirements of the MOU and the additional requirements of this Supplemental MOU shall apply to the Con-Ed Offset/State Route 100 Alternative, as that alternative is described in section 6.1.1 of SDEIS (hereinafter the "Con-Ed Offset Alternative") if that alternative is modified to include the variation described below (this alternative, with the variation described below, is referred to as the "Con-Ed/Taconic Variation"). The Con-Ed/Offset Alternative starts at Millennium milepost 391.2 and extends 12.3 miles to the point where it interconnects with the 9/9A Proposal at milepost 401.3. The Con-Ed/Taconic Variation starts at Con-Ed Offset Alternative milepost 8.3, proceeds along western side of the Taconic Parkway 5.2 miles and rejoins the 9/9A Proposal at milepost 404.1. Both the Con-Ed Offset Alternative and the Con-Ed/Taconic Variation are depicted on the map attached as Attachment "A." The Con-Ed/Taconic Variation involves locating the pipeline on the western side of the southbound lane of the Taconic Parkway instead of locating the pipeline adjacent to Route 100.

- 2. Pursuant to Paragraph "f" of the MOU, the temperature at which the pipe toughness criteria will be utilized in the segments of the pipeline subject to the MOU and this Supplemental MOU shall be set at 25 degrees Fahrenheit. The revised pipe toughness criteria to be utilized in the segments of the pipeline subject to the MOU and this Supplemental MOU are attached as Attachment "B." The Charpy Energy Values referred to as Alt No. 2 on page 2 of Attachment B are applicable to the pipeline in all of Westchester.
- 3. Pursuant to Paragraph "n" of the MOU, the segments of the pipeline subject to the MOU and this Supplemental MOU shall be tested at a minimum of 1.5 times its Maximum Allowable Operating Pressure ("MAOP") for a period of not less than 24 hours.
- 4 Pursuant to Paragraph "b" of the MOU, Millennium shall conduct

"smart" pig surveys of the pipeline segments of the pipeline subject to the MOU and this Supplemental MOU prior to in-service, 1 year after in-service, 3 years after in-service, 6 years after in-service, and 9 years after in-service, for the purpose of detecting pipe wall loss and any other degradation of the pipeline segments. At the end of this period, the Parties shall agree to re-evaluate the pigging requirements based upon the application of good engineering judgment.

5. Pursuant to Paragraph "n" of the MOU, radiographs of each weld within the segments of the pipeline subject to the MOU and this Supplemental MOU shall be reviewed by a Level III Certified Radiograph Inspector. Furthermore, the procedures utilized by the aforementioned radiograph inspector shall be reviewed by a licensed professional engineer and certified accordingly.
6. Pursuant to Paragraph "c" of the MOU, Millennium shall adopt a design basis in Westchester County which, in the event of a catastrophic failure, would allow the pipeline to detect the failure, isolate the failed section, and passively evacuate the isolated section in no more than 3 minutes. To effectuate this standard, all main line valves in Westchester County shall be fitted with actuators that shall accomplish a 3 minute passive evacuation standard and shall be installed at spacing not greater than 5 miles between each valve throughout Westchester County.
7. Pursuant to Paragraph "n" of the MOU, gas odorization in Westchester County shall conform to 49 CFR Part 192.625, and gas will be odorized to the concentration presently required for distribution mains in 16 NYCRR Section 255.625.
8. Pursuant to Paragraph "k" of the MOU, Millennium shall reimburse Con Edison for the reasonable cost of necessary electric safety inspectors during construction inside Con Edison's power line right-of-way.
9. This Supplemental MOU sets forth the final agreement of the Parties regarding the design features to be incorporated into the Millennium Project for the segments of the pipeline subject to the MOU and this Supplemental MOU. Millennium shall file this Supplemental MOU with the FERC. Following certification of a final route through Westchester County, this Supplemental MOU shall be revised to correct the milepost designations contained in this Supplemental MOU to reflect the same locations (if relevant) for the route that is selected in the final certificate for the Millennium Project and to designate the specific location of each valve required

pursuant to Paragraph 6 above.

10. Pursuant to Paragraph "m" of the MOU, between mileposts 0.5 and 7.8 of the Con-Ed Offset Alternative, Millennium shall install the pipeline at a distance no less than 100' measured horizontally from the nearest conductor of the Southwestern most transmission line.
11. If the Wave Form Monitoring or Equivalent systems described in Paragraph "e" of the MOU is found not to be practicable for application, Millennium and the PSCNY will work diligently to identify other mechanical methodologies to provide added protection to the pipeline in critical areas.
12. Pursuant to Paragraph "o" of the MOU, Millennium and PSCNY hereby designate Charles A. Zielinski to serve as the decision-maker identified in Paragraph "o" of the MOU and to exercise the powers and authority set forth therein and under this Supplemental MOU. In the event that Mr. Zielinski is not able to serve as the decision-maker for any reason or the Parties decide that an additional decision-maker is necessary to accommodate anticipated construction activities, the Parties shall follow the procedures set forth in Paragraph "o" of the MOU to designate an alternate or additional decision-maker. If the Parties are unable to agree to an alternate or additional decision-maker, Mr. Zielinski shall assist with the selection process.
13. In the event a dispute arises between Millennium and the PSCNY involving implementation of the MOU or the Supplemental MOU (other than a dispute involving a Stop Work Order), the following procedures shall apply:
  - a. Each Party shall submit to the decision-maker a Position Statement setting forth its contentions with respect to the dispute. Each Party's Position Statement shall be accompanied by any and all evidence or other publicly available materials the Party deems relevant and necessary for resolution of the dispute. The Position Statements shall be submitted in accordance with a schedule agreed upon by the Parties, or if the Parties cannot agree, in accordance with a schedule established by the decision-maker.
  - b. There shall be no discovery and no further submissions by the Parties unless requested by the decision-maker in his sole discretion.
  - c. Unless both Parties consent to a hearing, or unless the decision-maker calls for a hearing, the decision-maker

shall decide the dispute solely upon the pleadings and evidence contained in, or submitted with, the Position Statements.

- d. If a hearing is held in accordance with the consent of the Parties or at the request of the decision-maker, such hearing shall be held as soon as possible at a location, date and time agreed to by the Parties, or if the Parties cannot so agree, at a location, date and time designated by the decision-maker.
  - e. All disputes submitted to the decision-maker for resolution shall be resolved by the decision-maker expeditiously.
14. In the event a dispute arises between Millennium and the PSCNY involving a Stop Work Order, the following procedures shall apply:
- a. Prior to commencing construction on any segment of the pipeline subject to the MOU and this Supplemental MOU, Millennium shall designate an Inspector or Inspectors (the "Inspector") who shall have the authority to stop work in accordance with the provisions of this Paragraph.
  - b. The PSCNY may, for any segment of the pipeline subject to the MOU and this Supplemental MOU, issue a Stop Work Order to the Inspector and Millennium verbally or in writing regarding violations of the construction-related safety mitigation measures required by the MOU or this Supplemental MOU, or other pipeline safety requirements specified in the FERC certificate for the Millennium Project (hereinafter the requirements subject to this Paragraph shall be referred to as "Pipeline Safety Requirements"). Any such Stop Work Order shall specify the work or activities that are subject to the Stop Work Order. Millennium shall immediately abate all work and activities subject to a Stop Work Order. If the Stop Work Order is verbal, then the PSCNY shall promptly issue a written Stop Work Order. The written Stop Work Order shall be served upon the Inspector, Millennium and the decision-maker via facsimile, e-mail, or overnight mail at the addresses designated by the Inspector, Millennium and the decision-maker. If Millennium corrects the alleged violation that is the subject of a Stop Work Order, the Inspector shall notify the PSCNY and have the authority to authorize work to resume after the alleged violation has been corrected, unless the PSCNY objects. Such authorization may be verbal or in writing. If the authorization to commence work is verbal, the Inspector

shall promptly issue written authorization for Millennium to resume work. The written authorization to resume work shall promptly be served upon Millennium, the PSCNY and the decision-maker in the manner authorized by this Paragraph.

If the PSCNY contests that the alleged violation has not been corrected, the PSCNY shall, after notifying the Inspector verbally, put in writing that the PSCNY contests the decision to authorize work to resume (hereinafter any such verbal or written notice shall be referred to as a "Notice of Contest"). Millennium shall not resume work if the Notice of Contest is issued prior to the resumption of work or activities subject to a Stop Work Order. The written Notice of Contest shall be served upon the Inspector, Millennium and the decision-maker in the manner authorized by this Paragraph. Upon receipt of a Notice of Contest, Millennium may either make further corrections or request a decision from the decision-maker. If further corrections are made, the Inspector shall notify the PSCNY and have the authority to authorize work to resume after the alleged violation has been corrected unless the PSCNY continues to object. The PSCNY shall have the right to issue a further Notice of Contest, all of which shall be in accordance with the procedures specified in this Paragraph, including the requirement that Millennium stop work subject to a further Notice of Contest. Notwithstanding the effort of Millennium to make further corrections, the PSCNY may request a decision from the decision-maker at any time.

- c. Upon referral of a dispute to the decision-maker, a conference among the Inspector, Millennium, the PSCNY, and the decision-maker shall be held immediately. The conference may be held in person or telephonically. At the conference, Millennium shall present its position in opposition to the Stop Work Order and/or its position concerning how the alleged violation has been corrected, which position may be presented orally. The PSC may then present its position.
- d. The decision-maker shall render a decision on the propriety of the Stop Work Order and/or whether the alleged violation has been corrected as soon as possible after the end of the conference, but in any event within twenty-four hours after the initial Stop Work Order by the PSCNY, or twenty-four hours after authorization has been granted to resume work, whichever is applicable. The determination of the decision-maker may be made orally,

within the prescribed time period, and confirmed in writing thereafter.

- 15 Except as specifically stated in this Supplemental MOU and the MOUs dated March 29, 2000 and April 18, 2000, all construction plans, procedures and requirements to be developed by Millennium pursuant to the aforementioned MOUs shall be in place prior to the commencement of any construction of the pipeline in Westchester County.
16. The Parties agree that the terms and conditions in the previously agreed to MOUs dated March 29, 2000 and April 18, 2000 are hereby incorporated into this Supplemental MOU.

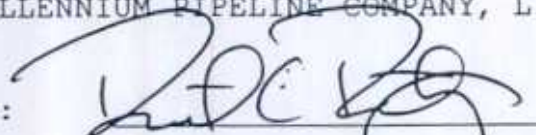
MILLENNIUM PIPELINE COMPANY, L.P.

By:

Name:

Title:

Date

  
DAVID C. PENTZIEN

Chairman

4/9/01

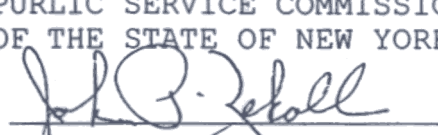
PUBLIC SERVICE COMMISSION  
OF THE STATE OF NEW YORK

By

Name:

Title:

Date:

  
JOHN P. ZEKOLL

Dep. Dir. OFFICE OF GAS & WATER

4/9/01





## **Attachment B**

### **Fracture Toughness of API Line Pipe**

Charpy v-notch impact testing shall be conducted in accordance with API 5L SR5 a and b.

#### **A.2 Sample Frequency**

Samples shall be removed from one joint of pipe from each 100 pipes per heat.

#### **Sample Location**

Samples shall be located 90 degrees from the weld seam.

#### **A.4 Specimen Preparation**

**A.4.1** Three Charpy V-notch specimens shall be machined from each sample and impact tested in accordance with ASTM A370 and the following.

**A.4.2** The notch location of the Charpy specimens shall be centered in the wall thickness

**A.4.3** The specimens shall be oriented transverse to the pipe axis.

**A.4.4** Flattening of pipe samples from which the specimens are obtained is not permitted

**A.4.5** The Charpy energy values listed in Table A.1 are required for full size 10mm X 10mm specimens. If the diameter and wall thickness does not permit the use of full size specimens, 10mm X 7.5mm, 10mm X 6.7mm, or 10mm X 5mm subsize specimens may be used. The specimen size shall be the largest obtainable from the size pipe being tested. The minimum energy values for subsize specimens shall be 75%, 67%, or 50% of those listed in Table A.1 for specimen sizes 10mm X 7.5mm, 10mm X 6.7mm, or 10mm X 5mm respectively.

**A.4.6** The thickest possible Charpy V-notch specimen shall be used for testing in accordance with API 5L.

#### **A.5 Test Temperature**

The specimens shall be tested at 25 degrees F unless otherwise specified in the purchase order.

#### **A.6 Test Requirements**

The Charpy v-notch test results shall meet the energy values listed in Table A.1, Alternate No. 2. The shear area of the specimens shall be recorded and reported.

#### **A.7 Retests**

If any sample fails to pass the test, that length of pipe shall be rejected and the same number of samples shall be taken from each of two other pipes in the same lot and tested. If both additional test pipes pass then all pipe except the rejected pipe from the lot will be accepted. If one or both of the additional test pipes fail, then the lot shall be rejected except that the remaining pipes in the lot, at the manufacturer's option, may each individually be tested.

#### **Drop Weight Tear Tests (DWTT)**

Drop weight tear tests shall be conducted in accordance with API 5L SR6. The test temperature shall be 25°F unless otherwise specified in the purchase order. The minimum acceptable average percent shear for each heat shall be 85%.

A.9 Transition Temperature Curves

Full transition temperature curves showing Charpy energy (CVN) values (including the upper shelf energy) and Drop Weight Tear Test shear area fracture appearance shall be developed and provided for pipe representing 10% of the heats of steel supplied on this order. The CVN curves should cover a temperature range that produces energies from the upper shelf value at 100% shear to an energy of 50% of upper shelf value. The DWTT shear area values should cover a range of temperatures that produce shear areas from 50 to 100%.

TABLE A.1

CHARPY ENERGY VALUES

Pipe Grade	Diameter (in.)	W.T. (in.)	Design Factor	Energy Values (ft-lbs)	
				Average of 3 Specimens/Minimum 1 Specimen	
				ALT No. 1	ALT No. 2
X70	24	0.343	0.50	26/20	35/26
X70	24	0.429	0.40	26/20	35/26
X70	24	0.525	0.33	26/20	35/26

End of Specification